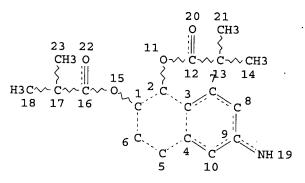
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=> search l1 sss full FULL SEARCH INITIATED 11:39:10 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 58862 TO ITERATE

100.0% PROCESSED 58862 ITERATIONS SEARCH TIME: 00.00.01

30 ANSWERS

L230 SEA SSS FUL L1

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L2ANSWER 1 OF 30 REGISTRY COPYRIGHT 2003 ACS

373380-13-3 REGISTRY RN

Propanoic acid, 2-methyl-, (6R)-5,6,7,8-tetrahydro-6-(methylamino)-1,2-CN naphthalenediyl ester, hydrochloride (9CI) (CA INDEX NAME) OTHER NAMES:

(+)-(R)-5,6-Diisobutyroyloxy-2-methylaminotetralin hydrochloride CN

FS STEREOSEARCH

MF C19 H27 N O4 . Cl H

SR

LCSTN Files: CA, CAPLUS

CRN (146085-52-1)

Absolute stereochemistry. Rotation (+).

HC1

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

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Optically active 2-aminotetralin derivatives, the processes for the
TΙ
     preparation thereof, and the therapeutic use of pharmaceutical
     compositions containing them as antihypertensives, etc.
IN
     Amari, Gabriele; Del Canale, Maurizio; Razzetti, Roberta; Monici Preti,
     Pier Alessandro; Rondelli, Ivano
PΑ
     Chiesi Farmaceutici S.p.A., Italy
     PCT Int. Appl., 29 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
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                            20011115
                                          WO 2001-EP5212
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                      A1
                                                            20010508
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
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             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
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             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     IT 2000MI1053
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     EP 1280759
                                           EP 2001-940415
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                                                            20010508
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             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
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                                          NO 2002-5393
                                                            20021111
PRAI IT 2000-MI1053
                      20000512
     WO 2001-EP5212
                      20010508
GΙ
```

ΑN

135:357780 CA

AB The invention concerns the use of the optically active forms of 5,6-dihydroxy-2-methylaminotetralin and their acyl esters, namely I R2 = H, C1-4 acyl], and their pharmaceutically acceptable salts, as medicaments. Also disclosed are a process for prepn. of I, and the use of I in pharmaceutical compns. Examples illustrate the prepn. of (+) - and (-)-I [R1 = R2 = isobutyroyl (II)] and the biol. activity of (+) - and (-)-I [R1 = R2 = H (III)]. For instance, (.+-.)-II.HCl was resolved using (-)-L- and (+)-D-dibenzoyltartaric acids to give (+)-(R)- and (-) -(S) -II.HCl with > 99% enantiomeric excess (ee) in both cases. Alternatively, 3-methoxycarbonylamino-5-(2,3-dimethoxyphenyl)-2,5dihydrofuran-2-one underwent asym. hydrogenation using rhodium-(R,R)- or -(S,S)-EtDuPhos(COD)OTs complex as chiral catalysts, to give (+)-(S)- or (-)-(R)-2,3-(MeO)2C6H3CH2CH2CH(NHCO2Me)CO2H with 92% and 95% ee, resp. Cyclization of the acids to give tetralones, redn. of carbonyl, N-methylation, hydrolysis, O-demethylation, and esterification with isobutyroyl chloride in CF3CO2H, gave (+)-(R)- and (-)-(S)-II.HCl with approx. 95% ee in both cases. In several receptor assays, (-)-(S)-III showed 20 times the affinity for D2 dopaminergic receptors, and 10 times the affinity for .alpha.2 receptors, when compared to its enantiomer (+)-(R)-III, while showing similar activity at D1, .alpha.1, .beta.1, and .beta.2 receptors. This difference in activity was reflected in animal expts. using spontaneously hypertensive rats. RE.CNT THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 30 REGISTRY COPYRIGHT 2003 ACS

RN 373361-89-8 REGISTRY

CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2S,3S)-, compd. with (6S)-5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl bis(2-methylpropanoate) (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Propanoic acid, 2-methyl-, (6S)-5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl ester, (2S,3S)-2,3-bis(benzoyloxy)butanedioate (1:1) (9CI) OTHER NAMES:

CN (-)-(S)-5,6-Diisobutyroyloxy-2-methylaminotetralin (+)-D-dibenzoyltartrate

FS STEREOSEARCH

MF C19 H27 N O4 . C18 H14 O8

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 146085-50-9 CMF C19 H27 N O4

Absolute stereochemistry. Rotation (-).

CM 2

CRN 17026-42-5 CMF C18 H14 O8

Absolute stereochemistry. Rotation (+).

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 135:357780 CA

TI Optically active 2-aminotetralin derivatives, the processes for the preparation thereof, and the therapeutic use of pharmaceutical compositions containing them as antihypertensives, etc.

IN Amari, Gabriele; Del Canale, Maurizio; Razzetti, Roberta; Monici Preti,
Pier Alessandro; Rondelli, Ivano

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PA
     Chiesi Farmaceutici S.p.A., Italy
SO
     PCT Int. Appl., 29 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                      KIND . DATE
                                           APPLICATION NO.
                                                           DATE
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ΡI
     WO 2001085668
                      Α1
                            20011115
                                           WO 2001-EP5212
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            UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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PRAI IT 2000-MI1053
                     20000512
    WO 2001-EP5212
                     20010508
GΙ
```

AB The invention concerns the use of the optically active forms of 5,6-dihydroxy-2-methylaminotetralin and their acyl esters, namely I [R1, R2 = H, C1-4 acyl], and their pharmaceutically acceptable salts, as medicaments. Also disclosed are a process for prepn. of I, and the use of I in pharmaceutical compns. Examples illustrate the prepn. of (+) - and (-)-I [R1 = R2 = isobutyroyl (II)] and the biol. activity of (+)- and (-)-I [R1 = R2 = H (III)]. For instance, (.+-.)-II.HCl was resolved using (-)-L- and (+)-D-dibenzoyltartaric acids to give (+)-(R)- and (-)-(S)-II.HCl with > 99% enantiomeric excess (ee) in both cases. Alternatively, 3-methoxycarbonylamino-5-(2,3-dimethoxyphenyl)-2,5dihydrofuran-2-one underwent asym. hydrogenation using rhodium-(R,R)- or -(S,S)-EtDuPhos(COD)OTs complex as chiral catalysts, to give (+)-(S)- or (-)-(R)-2,3-(MeO)2C6H3CH2CH2CH(NHCO2Me)CO2H with 92% and 95% ee, resp. Cyclization of the acids to give tetralones, redn. of carbonyl, N-methylation, hydrolysis, O-demethylation, and esterification with isobutyroyl chloride in CF3CO2H, gave (+)-(R)- and (-)-(S)-II.HCl with approx. 95% ee in both cases. In several receptor assays, (-)-(S)-III showed 20 times the affinity for D2 dopaminergic receptors, and 10 times the affinity for .alpha.2 receptors, when compared to its enantiomer (+) - (R) -III, while showing similar activity at D1, .alpha.1, .beta.1, and .beta.2 receptors. This difference in activity was reflected in animal expts. using spontaneously hypertensive rats. THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

L2 ANSWER 3 OF 30 REGISTRY COPYRIGHT 2003 ACS

RN 373361-88-7 REGISTRY

CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2R,3R)-, compd. with (6R)-5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl bis(2-methylpropanoate) (1:1) (9CI) (CA INDEX NAME)

ALL CITATIONS AVAILABLE IN THE RE FORMAT

OTHER CA INDEX NAMES:

CN Propanoic acid, 2-methyl-, (6R)-5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl ester, (2R,3R)-2,3-bis(benzoyloxy)butanedioate (1:1) (9CI)
OTHER NAMES:

CN (+)-(R)-5,6-Diisobutyroyloxy-2-methylaminotetralin (-)-L-dibenzoyltartrate

FS STEREOSEARCH

MF C19 H27 N O4 . C18 H14 O8

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 146085-52-1 CMF C19 H27 N O4

Absolute stereochemistry. Rotation (+).

CM 2

CRN 2743-38-6 CMF C18 H14 O8

Absolute stereochemistry.

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 135:357780 CA

TI Optically active 2-aminotetralin derivatives, the processes for the preparation thereof, and the therapeutic use of pharmaceutical compositions containing them as antihypertensives, etc.

IN Amari, Gabriele; Del Canale, Maurizio; Razzetti, Roberta; Monici Preti,
Pier Alessandro; Rondelli, Ivano

PA Chiesi Farmaceutici S.p.A., Italy

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

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WO 2001-EP5212
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     WO 2001085668
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     NO 2002005393
                      20000512
PRAI IT 2000-MI1053
                      20010508
     WO 2001-EP5212
GΙ
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LC

STN Files:

The invention concerns the use of the optically active forms of AΒ 5,6-dihydroxy-2-methylaminotetralin and their acyl esters, namely I [R1, R2 = H, C1-4 acyl], and their pharmaceutically acceptable salts, as medicaments. Also disclosed are a process for prepn. of I, and the use of I in pharmaceutical compns. Examples illustrate the prepn. of (+) - and (-)-I [R1 = R2 = isobutyroyl (II)] and the biol. activity of (+)- and (-)-I [R1 = R2 = H (III)]. For instance, (.+-.)-II.HCl was resolved using (-)-L- and (+)-D-dibenzoyltartaric acids to give (+)-(R)- and (-)-(S)-II.HCl with > 99% enantiomeric excess (ee) in both cases. Alternatively, 3-methoxycarbonylamino-5-(2,3-dimethoxyphenyl)-2,5dihydrofuran-2-one underwent asym. hydrogenation using rhodium-(R,R)- or -(S,S)-EtDuPhos(COD)OTs complex as chiral catalysts, to give (+)-(S)- or (-) - (R) -2,3-(MeO) 2C6H3CH2CH2CH (NHCO2Me) CO2H with 92% and 95% ee, resp. Cyclization of the acids to give tetralones, redn. of carbonyl, N-methylation, hydrolysis, O-demethylation, and esterification with isobutyroyl chloride in CF3CO2H, gave (+)-(R)- and (-)-(S)-II.HCl with approx. 95% ee in both cases. In several receptor assays, (-)-(S)-III showed 20 times the affinity for D2 dopaminergic receptors, and 10 times the affinity for .alpha.2 receptors, when compared to its enantiomer (+)-(R)-III, while showing similar activity at D1, .alpha.1, .beta.1, and .beta.2 receptors. This difference in activity was reflected in animal expts. using spontaneously hypertensive rats.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

CA, CAPLUS, USPATFULL

```
L2 ANSWER 4 OF 30 REGISTRY COPYRIGHT 2003 ACS
RN 156277-61-1 REGISTRY
CN Propanoic acid, 2,2-dimethyl-, 6-(cyclobutylamino)-5,6,7,8-tetrahydro-5-hydroxy-1,2-naphthalenediyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C24 H35 N O5
SR CA
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- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 121:91851 CA

.beta.2-Adrenergic agonists and use thereof in the treatment of glaucoma ΤI

IN York, Billie M.; Kyba, Evan P.

PΑ Alcon Laboratories, Inc., USA

SO

U.S., 4 pp. CODEN: USXXAM

DTPatent

LΑ English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE ----------------US 5314916 Α 19940524 US -1993-49462 19930419

PRAI US 1993-49462 19930419

GI

- AΒ Ophthalmic compns. for controlling intraocular pressure comprise tetrahydronaphthalene derivs.(I; X = O, NH; R, R1, R2 = alkyl, cycloalkyl) having .beta.2 adrenergic agonist activity. The compds. are believed to be useful in controlling intraocular pressure by increasing the outflow of aq. humor. The compds. are considered to be less likely to cause cardiovascular side effects and various other side effects assocd. with stimulation of .beta.1 receptors, relative to epinephrine.
- L2ANSWER 5 OF 30 REGISTRY COPYRIGHT 2003 ACS
- RN156277-60-0 REGISTRY
- CNPropanoic acid, 2,2-dimethyl-, 5,6,7,8-tetrahydro-5-hydroxy-6-[(1methylethyl)amino]-1,2-naphthalenediyl ester (9CI) (CA INDEX NAME)
- FS 3D CONCORD
- MF C23 H35 N O5
- SR CA
- LC STN Files: CA, CAPLUS, USPATFULL

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 121:91851 CA

TI .beta.2-Adrenergic agonists and use thereof in the treatment of glaucoma

IN York, Billie M.; Kyba, Evan P.

PA Alcon Laboratories, Inc., USA

SO U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
US 5314916 A 19940524 US 1993-49462 19930419

PRAI US 1993-49462 19930419

GI

- Ophthalmic compns. for controlling intraocular pressure comprise tetrahydronaphthalene derivs.(I; X = 0, NH; R, R1, R2 = alkyl, cycloalkyl) having .beta.2 adrenergic agonist activity. The compds. are believed to be useful in controlling intraocular pressure by increasing the outflow of aq. humor. The compds. are considered to be less likely to cause cardiovascular side effects and various other side effects assocd. with stimulation of .beta.1 receptors, relative to epinephrine.
- L2 ANSWER 6 OF 30 REGISTRY COPYRIGHT 2003 ACS
- RN 156277-59-7 REGISTRY
- CN Propanoic acid, 2,2-dimethyl-, 5,6,7,8-tetrahydro-5-hydroxy-6-(methylamino)-1,2-naphthalenediyl ester (9CI) (CA INDEX NAME)
- FS 3D CONCORD
- MF C21 H31 N O5
- SR CA
- LC STN Files: CA, CAPLUS, USPATFULL

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 121:91851 CA

TI .beta.2-Adrenergic agonists and use thereof in the treatment of glaucoma

IN York, Billie M.; Kyba, Evan P.

PA Alcon Laboratories, Inc., USA

O U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
US 5314916 A 19940524 US 1993-49462 19930419

PRAI US 1993-49462 19930419

GΙ

- AB Ophthalmic compns. for controlling intraocular pressure comprise tetrahydronaphthalene derivs.(I; X = O, NH; R, R1, R2 = alkyl, cycloalkyl) having .beta.2 adrenergic agonist activity. The compds. are believed to be useful in controlling intraocular pressure by increasing the outflow of aq. humor. The compds. are considered to be less likely to cause cardiovascular side effects and various other side effects assocd. with stimulation of .beta.1 receptors, relative to epinephrine.
- L2 ANSWER 7 OF 30 REGISTRY COPYRIGHT 2003 ACS

Ι

- RN 146085-53-2 REGISTRY
- CN .gamma.-Cyclodextrin, compd. with (R)-5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl bis(2-methylpropanoate) (1:1) (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES:
- CN 2,4,7,9,12,14,17,19,22,24,27,29,32,34,37,39-Hexadecaoxanonacyclo[36.2.2.23,6.28,11.213,16.218,21.223,26.228,31.233,36] hexapentacontane, gamma.-cyclodextrin deriv.
- CN Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl ester, (R)-, compd. with .gamma.-cyclodextrin (1:1) (9CI)
- FS STEREOSEARCH
- MF C48 H80 O40 . C19 H27 N O4
- SR CA
- LC STN Files: CA, CAPLUS

CM1

CRN 146085-52-1 CMF C19 H27 N O4

Absolute stereochemistry. Rotation (+).

CM 2

CRN 17465-86-0 CMF C48 H80 O40

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 118:154695 CA

ΤI Application of .gamma.-cyclodextrin to enantiomeric purity determination of a new 2-aminotetralin derivative by proton NMR spectroscopy

ΑU Redenti, Enrico; Fronza, Giovanni; Bovis, Giovanni; Ventura, Paolo

CS Chem. Biopharm. Dep., Chiesi Farm. S.p.A., Parma, I-43100, Italy

Chirality (1992), 4(6), 404-5

CODEN: CHRLEP; ISSN: 0899-0042

DTJournal

LA English

GI

SO

AB .gamma.-Cyclodextrin was used to perform chiral discrimination of (.+-.)-5,6-diisobutyroyl-2-methylaminotetralin-HCl (I) by 1H-NMR; the 95% enantiomeric excess of the (-)-isomer was detd. successfully.

ANSWER 8 OF 30 REGISTRY COPYRIGHT 2003 ACS L2

RN146085-52-1 REGISTRY

CN Propanoic acid, 2-methyl-, (6R)-5,6,7,8-tetrahydro-6-(methylamino)-1,2naphthalenediyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2naphthalenediyl ester, (R)-

OTHER NAMES:

CN (+)-(R)-5,6-Diisobutyryloxy-2-methylaminotetralin

CN CHF 1800

FS STEREOSEARCH

MF C19 H27 N O4

CI COM

SR CA

LC STN Files: CA, CAPLUS, DRUGPAT, DRUGUPDATES

Absolute stereochemistry. Rotation (+).

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 3 REFERENCES IN FILE CA (1957 TO DATE)
- 3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 135:357780 CA

Optically active 2-aminotetralin derivatives, the processes for the TT preparation thereof, and the therapeutic use of pharmaceutical compositions containing them as antihypertensives, etc.

IN Amari, Gabriele; Del Canale, Maurizio; Razzetti, Roberta; Monici Preti, Pier Alessandro; Rondelli, Ivano

PΑ Chiesi Farmaceutici S.p.A., Italy

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2 DT Patent

LA English

FAN.CNT 1

PΙ

PATENT NO. KIND DATE APPLICATION NO. DATE ----------_____ WO 2001085668 20011115 WO 2001-EP5212 A1 20010508

AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG IT 2000MI1053 Α1 20011112 IT 2000-MI1053 20000512 EP 1280759 A1 20030205 EP 2001-940415 20010508 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR NO 2002005393 Α 20030113 NO 2002-5393 20021111 PRAI IT 2000-MI1053 20000512 WO 2001-EP5212 20010508 GT

AB The invention concerns the use of the optically active forms of 5,6-dihydroxy-2-methylaminotetralin and their acyl esters, namely I [R1, R2 = H, C1-4 acyl], and their pharmaceutically acceptable salts, as medicaments. Also disclosed are a process for prepn. of I, and the use of I in pharmaceutical compns. Examples illustrate the prepn. of (+) - and (-)-I [R1 = R2 = isobutyroyl (II)] and the biol. activity of (+)- and (-)-I [R1 = R2 = H (III)]. For instance, (.+-.)-II.HCl was resolved using (-)-L- and (+)-D-dibenzoyltartaric acids to give (+)-(R)- and (-)-(S)-II.HCl with > 99% enantiomeric excess (ee) in both cases. Alternatively, 3-methoxycarbonylamino-5-(2,3-dimethoxyphenyl)-2,5dihydrofuran-2-one underwent asym. hydrogenation using rhodium-(R,R)- or -(S,S) -EtDuPhos(COD)OTs complex as chiral catalysts, to give (+) - (S) - or (-)-(R)-2,3-(MeO)2C6H3CH2CH2CH(NHCO2Me)CO2H with 92% and 95% ee, resp. Cyclization of the acids to give tetralones, redn. of carbonyl, N-methylation, hydrolysis, O-demethylation, and esterification with isobutyroyl chloride in CF3CO2H, gave (+)-(R)- and (-)-(S)-II.HCl with approx. 95% èe in both cases. In several receptor assays, (-)-(S)-III showed 20 times the affinity for D2 dopaminergic receptors, and 10 times the affinity for .alpha.2 receptors, when compared to its enantiomer (+)-(R)-III, while showing similar activity at D1, .alpha.1, .beta.1, and .beta.2 receptors. This difference in activity was reflected in animal expts. using spontaneously hypertensive rats.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 2

AN 126:220252 CA

TI New method for the resolution of the enantiomers of 5,6-dihydroxy-2-methylaminotetralin by selective derivatization and HPLC. [Erratum to document cited in CA125:316086]

AU Rondelli, Ivano; Corsaletti, Roberto; Redenti, Enrico; Acerbi, Daniela; Delcanale, Maurizio; Amari, Gabriele; Ventura, Paolo

CS Chemical Biopharmaceutical Direction, Parma, Italy

SO Chirality (1997), 9(1), 89 CODEN: CHRLEP; ISSN: 0899-0042

PB Wiley-Liss

DT Journal

LA English

AB The errors were not reflected in the abstr. or the index entries.

REFERENCE 3

AN 125:316086 CA

TI New method for the resolution of the enantiomers of 5,6-dihydroxy-2-methylaminotetralin by selective derivatization and HPLC analysis: application to biological fluids

AU Rondelli, Ivano; Corsaletti, Roberto; Redenti, Enrico; Acerbi, Daniela; Delcanale, Maurizio; Amari, Gabriele; Ventura, Paolo

CS Chemical Biopharmaceutical Direction, Chiesi Farmaceutici S.p.A., Parma, Italy

SO Chirality (1996), 8(5), 381-389 CODEN: CHRLEP; ISSN: 0899-0042

PB Wiley-Liss

DT Journal

LA English

AB A new chiral derivatization procedure for the HPLC resoln. of chiral catecholamines and structurally related compds. is described. The homochiral reagent, (+)-(R)-1-phenylethyl isocyanate (RPEIC), was added to sep. and quantitate the enantiomers of rac-5,6-dihydroxy-2-methylaminotetralin, the main metabolite of rac-5,6-diisobutyryl-2-methylaminotetralin, a potent dopamine agonist, by reversed-phase HPLC anal. avoid catecholamine degrdn. in the basic reaction medium and to obtain the selective and quant. derivatization of the amino group of the compd., the reversible complex formation between diphenylborinic acid (DPBA) and the catechol group, in alk. medium, was performed before homochiral isocyanate addn. The RPEIC derivatization was completed in 30 min and then the DPBA complex was dissocd. by adding dil. acid. The structure of intermediates and urea derivs. was confirmed by mass spectrometry. The use of an electrochem. detector, operating in redox mode, allowed HPLC quantitation of enantiomers at the nanogram level in plasma and urine. The derivatization procedure is also suitable for other catecholamine-related compds.

L2 ANSWER 9 OF 30 REGISTRY COPYRIGHT 2003 ACS

RN 146085-51-0 REGISTRY

CN .gamma.-Cyclodextrin, compd. with (S)-5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl bis(2-methylpropanoate) (1:1) (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES:

CN 2,4,7,9,12,14,17,19,22,24,27,29,32,34,37,39-Hexadecaoxanonacyclo[36.2.2.23,6.28,11.213,16.218,21.223,26.228,31.233,36] hexapentacontane, .gamma.-cyclodextrin deriv.

CN Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl ester, (S)-, compd. with .gamma.-cyclodextrin (1:1) (9CI)

FS STEREOSEARCH

MF C48 H80 O40 . C19 H27 N O4

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 146085-50-9 CMF C19 H27 N O4

Absolute stereochemistry. Rotation (-).

501

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 118:154695 CA Application of .gamma.-cyclodextrin to enantiomeric purity determination ΤI of a new 2-aminotetralin derivative by proton NMR spectroscopy Redenti, Enrico; Fronza, Giovanni; Bovis, Giovanni; Ventura, Paolo CS Chem. Biopharm. Dep., Chiesi Farm. S.p.A., Parma, I-43100, Italy SO Chirality (1992), 4(6), 404-5

CODEN: CHRLEP; ISSN: 0899-0042

DT Journal LA English GI

O2CCHMe2 Me₂CHCO₂ @ HCl NHMe Ι

- AB .gamma.-Cyclodextrin was used to perform chiral discrimination of (.+-.)-5,6-diisobutyroyl-2-methylaminotetralin-HCl (I) by 1H-NMR; the 95% enantiomeric excess of the (-)-isomer was detd. successfully.
- L2ANSWER 10 OF 30 REGISTRY COPYRIGHT 2003 ACS
- RN 146085-50-9 REGISTRY
- Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2naphthalenediyl ester, (6S)- (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES:
- Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2naphthalenediyl ester, (S)-
- OTHER NAMES:
- CN (-)-(S)-5,6-diisobutyroyloxy-2-methylaminotetralin
- CN CHF 1810
- FS STEREOSEARCH

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MF C19 H27 N O4
CI COM
SR CA
LC STN Files: CA, CAPLUS, DRUGPAT, DRUGUPDATES
Absolute stereochemistry. Rotation (-).
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- 4 REFERENCES IN FILE CA (1957 TO DATE)
- 4 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

135:357780 CA

AN

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Optically active 2-aminotetralin derivatives, the processes for the
TI
     preparation thereof, and the therapeutic use of pharmaceutical
     compositions containing them as antihypertensives, etc.
     Amari, Gabriele; Del Canale, Maurizio; Razzetti, Roberta; Monici Preti,
IN
     Pier Alessandro; Rondelli, Ivano
PA
     Chiesi Farmaceutici S.p.A., Italy
     PCT Int. Appl., 29 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
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PΙ
     WO 2001085668
                     A1
                            20011115
                                          WO 2001-EP5212
                                                           20010508
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             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     IT 2000MI1053
                      A1
                           20011112
                                         IT 2000-MI1053
                                                           20000512
     EP 1280759
                      A1
                           20030205
                                          EP 2001-940415
                                                           20010508
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     NO 2002005393
                      Α
                           20030113
                                          NO 2002-5393
                                                           20021111
PRAI IT 2000-MI1053
                     20000512
     WO 2001-EP5212
                     20010508
GI
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Ι

AB The invention concerns the use of the optically active forms of 5,6-dihydroxy-2-methylaminotetralin and their acyl esters, namely I [R1, R2 = H, C1-4 acyl], and their pharmaceutically acceptable salts, as medicaments. Also disclosed are a process for prepn. of I, and the use of I in pharmaceutical compns. Examples illustrate the prepn. of (+)- and (-)-I [R1 = R2 = isobutyroyl (II)] and the biol. activity of (+)- and (-)-I [R1 = R2 = H (III)]. For instance, (.+-.)-II.HCl was resolved using (-)-L- and (+)-D-dibenzoyltartaric acids to give (+)-(R)- and (-)-(S)-II.HCl with > 99% enantiomeric excess (ee) in both cases. Alternatively, 3-methoxycarbonylamino-5-(2,3-dimethoxyphenyl)-2,5dihydrofuran-2-one underwent asym. hydrogenation using rhodium-(R,R)- or -(S,S)-EtDuPhos(COD)OTs complex as chiral catalysts, to give (+)-(S)- or (-)-(R)-2,3-(MeO)2C6H3CH2CH2CH(NHCO2Me)CO2H with 92% and 95% ee, resp. Cyclization of the acids to give tetralones, redn. of carbonyl, N-methylation, hydrolysis, O-demethylation, and esterification with isobutyroyl chloride in CF3CO2H, gave (+)-(R)- and (-)-(S)-II.HCl with approx. 95% ee in both cases. In several receptor assays, (-)-(S)-III showed 20 times the affinity for D2 dopaminergic receptors, and 10 times the affinity for .alpha.2 receptors, when compared to its enantiomer (+)-(R)-III, while showing similar activity at D1, .alpha.1, .beta.1, and .beta.2 receptors. This difference in activity was reflected in animal expts. using spontaneously hypertensive rats.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 2

```
AN
      134:125975 CA
      2-Aminotetralin derivatives for the therapy of glaucoma
TI
      Bongrani, Stefano; Razzetti, Roberta; Chiesi, Paolo
IN
      Chiesi Farmaceutici S.P.A., Italy
PA
SO
      PCT Int. Appl., 18 pp.
      CODEN: PIXXD2
DT
      Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                        KIND
                              DATE
                                              APPLICATION NO.
                                                                 DATE
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PΙ
     WO 2001008667
                         A2
                              20010208
                                              WO 2000-EP7184
                                                                 20000726
     WO 2001008667
                       - A3
                              20010607
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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              LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
              SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
              YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
              CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     IT 99MI1713
                        Α1
                              20010130
                                              IT 1999-MI1713
                                                                 19990730
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                        A2
                              20020502
                                              EP 2000-956296
                                                                 20000726
              AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL
     JP 2003505499
                        T2
                              20030212
                                              JP 2001-513397
                                                                20000726
     NO 2002000475
                        Α
                              20020313
                                              NO 2002-475
                                                                20020129
PRAI IT 1999-MI1713
                       19990730
     WO 2000-EP7184
                       20000726
AB
     Disclosed is the use of racemic or optically active compds. of
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5,6-diisobutyroyloxy-2-methylaminotetralin, 5,6-diisobutyroyloxy-2aminotetralin, and salts thereof for the prepn. of pharmaceutical compns. for the therapy of ophthalmic disorders. Intraocular pressure-lowering activities of CHF 1035 were tested with rabbits.

REFERENCE 3

- ΑN 126:220252 CA
- New method for the resolution of the enantiomers of 5,6-dihydroxy-2-methyl-ΤI aminotetralin by selective derivatization and HPLC. [Erratum to document cited in CA125:316086]
- Rondelli, Ivano; Corsaletti, Roberto; Redenti, Enrico; Acerbi, Daniela; AU Delcanale, Maurizio; Amari, Gabriele; Ventura, Paolo
- Chemical Biopharmaceutical Direction, Parma, Italy CS
- SO Chirality (1997), 9(1), 89 CODEN: CHRLEP; ISSN: 0899-0042
- PR Wiley-Liss
- Journal DТ
- LA English
- AB The errors were not reflected in the abstr. or the index entries.

REFERENCE 4

- ΑN 125:316086 CA
- New method for the resolution of the enantiomers of 5,6-dihydroxy-2-methyl-TI aminotetralin by selective derivatization and HPLC analysis: application to biological fluids
- AU Rondelli, Ivano; Corsaletti, Roberto; Redenti, Enrico; Acerbi, Daniela; Delcanale, Maurizio; Amari, Gabriele; Ventura, Paolo
- Chemical Biopharmaceutical Direction, Chiesi Farmaceutici S.p.A., Parma, Italy
- Chirality (1996), 8(5), 381-389 CODEN: CHRLEP; ISSN: 0899-0042
- Wiley-Liss
- DT Journal
- LA English
- A new chiral derivatization procedure for the HPLC resoln. of chiral AΒ catecholamines and structurally related compds. is described. The homochiral reagent, (+) -(R) -1-phenylethyl isocyanate (RPEIC), was added to sep. and quantitate the enantiomers of rac-5,6-dihydroxy-2-methylaminotetralin, the main metabolite of rac-5,6-diisobutyryl-2-methylaminotetralin, a potent dopamine agonist, by reversed-phase HPLC anal. avoid catecholamine degrdn. in the basic reaction medium and to obtain the selective and quant. derivatization of the amino group of the compd., the reversible complex formation between diphenylborinic acid (DPBA) and the catechol group, in alk. medium, was performed before homochiral isocyanate The RPEIC derivatization was completed in 30 min and then the DPBA complex was dissocd. by adding dil. acid. The structure of intermediates and urea derivs. was confirmed by mass spectrometry. The use of an electrochem. detector, operating in redox mode, allowed HPLC quantitation of enantiomers at the nanogram level in plasma and urine. The derivatization procedure is also suitable for other catecholamine-related compds.
- L2 ANSWER 11 OF 30 REGISTRY COPYRIGHT 2003 ACS
- RN 146085-49-6 REGISTRY
- .gamma.-Cyclodextrin, compd. with 5,6,7,8-tetrahydro-6-(methylamino)-1,2naphthalenediyl bis(2-methylpropanoate) (1:1) (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES:
- .gamma.-Cyclodextrin, compd. with (.+-.)-5,6,7,8-tetrahydro-6-CN (methylamino) -1,2-naphthalenediyl bis(2-methylpropanoate) (1:1)
- 2,4,7,9,12,14,17,19,22,24,27,29,32,34,37,39-Hexadecaoxanonacyclo[36.2.2.23 ,6.28,11.213,16.218,21.223,26.228,31.233,36] hexapentacontane, .gamma.-cyclodextrin deriv.
- Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2-CN
- naphthalenediyl ester, (.+-.)-, compd. with .gamma.-cyclodextrin (1:1) Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2-CNnaphthalenediyl ester, compd. with .gamma.-cyclodextrin (1:1) (9CI)
- MF C48 H80 O40 . C19 H27 N O4

SR CA

LC STN Files: CA, CAPLUS

> CM1

CRN 90060-42-7 CMF C19 H27 N O4

CM 2

CRN 17465-86-0 CMF C48 H80 O40

1 REFERENCES IN FILE CA (1957 TO DATE) 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 118:154695 CA ΤI

Application of .gamma.-cyclodextrin to enantiomeric purity determination of a new 2-aminotetralin derivative by proton NMR spectroscopy ΑU

Redenti, Enrico; Fronza, Giovanni; Bovis, Giovanni; Ventura, Paolo

Chem. Biopharm. Dep., Chiesi Farm. S.p.A., Parma, I-43100, Italy CS

SO

Chirality (1992), 4(6), 404-5 CODEN: CHRLEP; ISSN: 0899-0042

DTJournal

LΑ English GI

AB .gamma.-Cyclodextrin was used to perform chiral discrimination of (.+-.)-5,6-diisobutyroyl-2-methylaminotetralin-HCl (I) by 1H-NMR; the 95% enantiomeric excess of the (-)-isomer was detd. successfully.

L2 ANSWER 12 OF 30 REGISTRY COPYRIGHT 2003 ACS

RN 138531-51-8 REGISTRY

CN Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl ester, hydrochloride (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl ester, hydrochloride, (.+-.)-

OTHER NAMES:

CN CHF 1035

CN Nolomirole hydrochloride

MF C19 H27 N O4 . C1 H

SR CA

LC STN Files: ADISINSIGHT, ADISNEWS, BIOSIS, CA, CAPLUS, DRUGPAT, DRUGUPDATES, IPA, PHAR, SYNTHLINE, TOXCENTER, USPATFULL CRN (90060-42-7)

HCl

- 11 REFERENCES IN FILE CA (1957 TO DATE)
- 11 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 138:16518 CA

TI Vibrational study of polymorphism of tetralin derivative for treatment of cardiovascular diseases

AU Taddei, Paola; Torreggiani, Armida; Fini, Giancarlo

CS Dipartimento di Biochimica G. Moruzzi, Sezione di Chimica e Propedeutic Biochimica, University of Bologna, Bologna, 40126, Italy

SO Biopolymers (2002), Volume Date 2001-2002, 61(3), 289-293 CODEN: BIPMAA; ISSN: 0006-3525

PB John Wiley & Sons, Inc.

DT Journal

LA English

Vibrational spectroscopy coupled with thermogravimetry (TG) and differential scanning calorimetry (DSC) was used to characterize racemic propanoic acid, 2-methyl-5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl ester hydrochloride (CHF-1035), which is a new DA2 dopaminergic receptor/.alpha.2 agonist and .beta. blocker under clin. investigation for the treatment of congestive heart failure. Raman spectroscopy disclosed at least two different CHF-1035 polymorphs; the marker bands characteristic of each form were identified. The modifications undergone by the CHF-1035 drug as a consequence of grinding

and heating were investigated. Mech. and gentle thermal treatments caused a polymorphic transformation of the drug crystal form. Raman spectroscopy proved suitable for investigating the possible presence of different polymorphic forms, their relative stability, and interconversion tendency in relation to industrial manufg. processes undergone by the drug (i.e., grinding, compression, and heating).

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 2

- AN 137:134225 CA
- TI Nolomirole hydrochloride: treatment of heart failure dopamine D2 agonist .alpha.2-adrenoreceptor agonist CHF-1035
- AU Mealy, N. E.; Leeson, P. A.; Bayes, M.; Castaner, J.
- CS Prous Science, Barcelona, 08080, Spain
- SO Drugs of the Future (2001), 26(11), 1046-1051 CODEN: DRFUD4; ISSN: 0377-8282
- PB Prous Science
- DT .Journal; General Review
- LA English
- AB A review describes the synthesis, pharmacol. actions, metab., and clin. studies of nolomirole hydrochloride. Nolomirole hydrochloride is a recently developed, orally active dopamine agonist that activates prejunctional dopamine D2 receptors and .alpha.-adrenoreceptors. The drug is rapidly hydrolyzed to its active metabolite CHF-1024 following oral administration.
- RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 3

- AN 137:68157 CA
- TI Inhalant compositions containing anticholinergics and dopamine agonists
- IN Pairet, Michel; Pieper, Michael Paul; Meade, Christopher John Montague
- PA Boehringer Ingelheim Pharma Kg, Germany
- SO PCT Int. Appl., 31 pp. CODEN: PIXXD2
- DT Patent
- LA German
- FAN CNT 1

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anticholinergic agents and dopamine agonists, a method for the prodn. of the compns. and the use of the same for the treatment of respiratory tract diseases. Thus an inhalation powder contained per capsule (.mu.g): tiotropium bromide 21.7; viozan 270; lactose 4708.3.

- AN 137:28116 CA
- TI Autonomic and hemodynamic effects of a new selective dopamine agonist, CHF 1035, in patients with chronic heart failure
- AU Tjeerdsma, Geert; van Wijk, Leen M.; Molhoek, G. Peter; Boomsma, Frans; Haaksma, Jaap; van Veldhuisen, Dirk J.
- CS Department of Cardiology/Thoraxcenter, University Hospital Groningen, Groningen, 9700 RB, Neth.
- SO Cardiovascular Drugs and Therapy (2001), 15(2), 139-145 CODEN: CDTHET; ISSN: 0920-3206
- PB Kluwer Academic Publishers
- DT Journal
- LA English
- AΒ Dopamine agonists have been studied in chronic heart failure, but earlier reports with non-selective compds. demonstrated unfavorable long-term effects. CHF 1035 is an orally active, new selective dopamine agonist, primarily activating DA2- and .alpha.2 receptors, thereby inhibiting norepinephrine release, which may be beneficial in heart failure. authors conducted a double-blind, placebo-controlled comparison of CHF 1035 (10 mg/day, n = 20) and placebo (n = 9) in patients with mild to moderate chronic heart failure (left ventricular ejection fraction <0.45). Patients were clin. stable on diuretics and angiotensin-converting enzyme inhibitors. Both acute and chronic assessments were made, including plasma neurohormones and 24-h Holter monitoring for heart rate variability anal. CHF 1035 was generally well tolerated during the study. After 10 days, there were no significant changes between the groups regarding heart rate and blood pressure. Compared to placebo, plasma norepinephrine levels decreased on CHF 1035, both in the first 4 h and after 10 days (p<0.05 between groups). Other neurohormones (natriuretic peptides, renin, aldosterone, and endothelin) were not significantly affected. Heart rate variability parameters generally increased on CHF 1035 but were unaffected by placebo (p<0.05 between groups). Short-term treatment with the selective dopaminergic agonist CHF 1035 is well tolerated, reduces plasma norepinephrine concns., and increases heart rate variability in mild chronic heart failure.
- RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 5

- AN 136:284291 CA
- TI Polymorphism of rac-5,6-diisobutyryloxy-2-methylamino-1,2,3,4-tetrahydro-naphthalene hydrochloride (CHF 1035). I. Thermal, spectroscopic, and X-ray diffraction properties
- AU Giordano, Ferdinando; Rossi, Alessandra; Moyano, Jose Ramon; Gazzaniga, Andrea; Massarotti, Vincenzo; Bini, Marcella; Capsoni, Doretta; Peveri, Tiziana; Redenti, Enrico; Carima, Lorenza; Alberi, Massimiliano Dagli; Zanol, Margherita
- CS Dipartimento Farmaceutico, University of Parma, Parma, I-43100, Italy SO Journal of Pharmaceutical Sciences (2001), 90(8), 1154-1163
- CODEN: JPMSAE; ISSN: 0022-3549
- PB Wiley-Liss, Inc.
- DT Journal
- LA English
- AB The polymorphism of rac-5,6-diisobutyryloxy-2-methylamino-1,2,3,4tetrahydro-naphthalene hydrochloride (CHF 1035) was investigated. Three different crystal forms (Form I, Form II, and Form III) were obtained by recrystn. procedures from common org. solvents. The polymorphs were characterized by Raman and carbon-13 NMR (13C-NMR) spectroscopy, in soln. and in solid state (cross polarization-magic angle spinning), powder x-ray diffractometry, and thermal methods (DSC, hot stage microscopy, and thermogravimetry). Moreover, the diffraction patterns of Form I, collected at controlled temps., gave evidence of the presence of 2 reversible structural rearrangements at 60 and 75.degree.. These structural variations were confirmed by the results obtained by DSC and hot stage microscopy techniques. The anal. of the Raman spectra allowed the identification of peculiar absorption bands for each polymorph. III was the stable crystal form at room temp. as detd. by the basis of slurry conversion method.
- RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

REFERENCE 6

EP 1280759

NO 2002005393

Α1

Α

20030205

20030113

EP 2001-940415

NO 2002-5393

AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

20010508

20021111

```
ΑN
      136:144453
      Dopaminergic agents in heart failure: Rebirth of an old concept
 ΤI
 ΑU
      Remme. Willem J.
      Sticares Cardiovascular Research Foundation, Rhoon, Neth.
 CS
      Cardiovascular Drugs and Therapy (2001), 15(2), 107-109
 SO
      CODEN: CDTHET; ISSN: 0920-3206
 PB
      Kluwer Academic Publishers
DT
      Journal; General Review
LA
      English
      A review discusses the CHF 1035, an orally active prodrug, which after
AB
      ingestion, is rapidly hydrolyzed to its active metabolite CHF 1024.
      CHF 1035 is a neurohormonal antagonist with little to be expected in terms
      of pos. inotropism, increased heart rate or pro-arrhythmic effects,
      typical for .beta.1 agonists. The studies conducted by Masson et al. and
      the article by Tjeerdsma et al. are cited. The former study examd. the
      effect of different dosages CHF 1024 on cardiac remodelling, plasma
      neurohormones, and urinary catecholamine excretion in an animal model of
      pressure-overload hypertrophy, comparing it to the ACE inhibitor
      captopril, while the latter focused on the study on plasma neurohormones
      and heart rate variability anal. Both studies indicate the potential
     usefulness of CHF 1035 (CHF 1024) in different, albeit related,
     conditions. Masson's study leads one to speculate that this drug might be
     useful in hypertension and other forms of pressure-overload to limit or
     prevent fibrosis and thereby one significant aspect of cardiac
     remodelling, before cardiac dysfunction or symptomatic heart failure has
     occurred. Tjeerdsma's study indicated that CHF 1035 in addn. to ACE
     inhibition decreases sympathetic tone and improves vagal activity,
     significant prognostic and pathophysiol. mechanisms in heart failure.
     These studies indicated a potentially significant role of this form of
     dopaminergic stimulation, one that may not result in the detrimental
     effects obsd. with the more hybrid compds., such as ibopamine.
RE.CNT 11
               THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
REFERENCE 7
ΑN
     135:357780 CA
     Optically active 2-aminotetralin derivatives, the processes for the
TI
     preparation thereof, and the therapeutic use of pharmaceutical
     compositions containing them as antihypertensives, etc.
IN
     Amari, Gabriele; Del Canale, Maurizio; Razzetti, Roberta; Monici Preti,
     Pier Alessandro; Rondelli, Ivano
PA
     Chiesi Farmaceutici S.p.A., Italy
     PCT Int. Appl., 29 pp.
SO
     CODEN: PIXXD2
DТ
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                       KIND DATE
                                            APPLICATION NO. DATE
                             -----
                                             -----
PΙ
     WO 2001085668
                      A1 20011115
                                             WO 2001-EP5212
                                                               20010508
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
         RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     IT 2000MI1053
                                            IT 2000-MI1053
                       A1
                             20011112
                                                               20000512
```

AB The invention concerns the use of the optically active forms of 5,6-dihydroxy-2-methylaminotetralin and their acyl esters, namely I [R1, R2 = H, C1-4 acyl], and their pharmaceutically acceptable salts, as medicaments. Also disclosed are a process for prepn. of I, and the use of I in pharmaceutical compns. Examples illustrate the prepn. of (+) - and (-)-I [R1 = R2 = isobutyroyl (II)] and the biol. activity of (+)- and (-)-I [R1 = R2 = H (III)]. For instance, (.+-.)-II.HCl was resolved using (-)-L- and (+)-D-dibenzoyltartaric acids to give (+)-(R)- and (-)-(S)-II.HCl with > 99% enantiomeric excess (ee) in both cases. Alternatively, 3-methoxycarbonylamino-5-(2,3-dimethoxyphenyl)-2,5dihydrofuran-2-one underwent asym. hydrogenation using rhodium-(R,R)- or -(S,S)-EtDuPhos(COD)OTs complex as chiral catalysts, to give (+)-(S)- or (-)-(R)-2,3-(MeO)2C6H3CH2CH2CH(NHCO2Me)CO2H with 92% and 95% ee, resp. Cyclization of the acids to give tetralones, redn. of carbonyl, N-methylation, hydrolysis, O-demethylation, and esterification with isobutyroyl chloride in CF3CO2H, gave (+)-(R)- and (-)-(S)-II.HCl with approx. 95% ee in both cases. In several receptor assays, (-)-(S)-III showed 20 times the affinity for D2 dopaminergic receptors, and 10 times the affinity for .alpha.2 receptors, when compared to its enantiomer (+)-(R)-III, while showing similar activity at D1, .alpha.1, .beta.1, and .beta.2 receptors. This difference in activity was reflected in animal expts. using spontaneously hypertensive rats.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 8

AN 135:204615 CA

TI Is there a role for dopaminergics in the treatment of chronic congestive heart failure?

AU Crippa, G.

- CS Hypertension Unit, Civil Hospital, Piacenza, Italy
- Cardiovascular Pharmacotherapy, Proceedings of the International Congress on Cardiovascular Pharmacotherapy, 9th, Salvador, Brazil, Mar. 26-30, 2000 (2000), 67-72. Editor(s): Reyes, Ariel J.; Maranhao, Mario F. C. Publisher: Monduzzi Editore S.p.A., Bologna, Italy. CODEN: 69BDEL
- DT Conference; General Review
- LA English
- AB A review, with 19 refs. For many years, attempts have been made in search of a drug for the treatment of congestive heart failure (CHF) with vasodilatory effect, natriuretic action, inotropic properties, higher efficacy and lower toxicity than digitalis. In patients with CHF the infusion of low-dose dopamine, acting as agonist on DA1 and DA2 receptors, increases sodium excretion and cardiac output, decreases vascular resistance without changes in heart rate and O2 consumption. I.v. dopexamine, a dopamine analog, increases renal and mesenteric blood flow and in patients with heart failure its vasodilatory effect results in a redn. in filling pressure. Fenoldopam (DA1-selective agonist), and ibopamine (DA1, DA2, .beta.2 and .alpha. agonist), both orally active, have been withdrawn from the market for a possible drug-related increased mortality. The acute hemodynamic studies with CHF 1035 (a new nonselective orally active dopaminergic) have shown significant increase

in cardiac index and stroke vol. and decrease in peripheral resistance and PCWP. In 2 add-on short-term clin. studies this drug improved the clin. condition and exercise capacity in patients with CHF and results were well tolerated. The physiol. rationale and these new encouraging clin. data justify the interest to continue studying this class of drugs.

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 9

```
AN
     134:125975 CA
     2-Aminotetralin derivatives for the therapy of glaucoma
TΤ
IN
     Bongrani, Stefano; Razzetti, Roberta; Chiesi, Paolo
PΑ
     Chiesi Farmaceutici S.P.A., Italy
SO
     PCT Int. Appl., 18 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO.
                                                           DATE
     -----
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                                           ------
                                                           -----
ΡI
     WO 2001008667
                      A2
                            20010208
                                          WO 2000-EP7184
                                                           20000726
     WO 2001008667
                      А3
                            20010607
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
            CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     IT 99MI1713
                      Α1
                           20010130
                                          IT 1999-MI1713
                                                           19990730
    EP 1200079
                      A2
                          20020502
                                          EP 2000-956296
                                                           20000726
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL
    JP 2003505499
                      T2
                           20030212
                                          JP 2001-513397
                                                           20000726
    NO 2002000475
                      Α
                           20020313
                                          NO 2002-475
                                                           20020129
PRAI IT 1999-MI1713
                     19990730
```

AB Disclosed is the use of racemic or optically active compds. of 5,6-diisobutyroyloxy-2-methylaminotetralin, 5,6-diisobutyroyloxy-2-aminotetralin, and salts thereof for the prepn. of pharmaceutical compns. for the therapy of ophthalmic disorders. Intraocular pressure-lowering activities of CHF 1035 were tested with rabbits.

REFERENCE 10

WO 2000-EP7184

20000726

```
AΝ
     118:154695 CA
TI
     Application of .gamma.-cyclodextrin to enantiomeric purity determination
     of a new 2-aminotetralin derivative by proton NMR spectroscopy
     Redenti, Enrico; Fronza, Giovanni; Bovis, Giovanni; Ventura, Paolo
ΑU
CS
     Chem. Biopharm. Dep., Chiesi Farm. S.p.A., Parma, I-43100, Italy
SO
     Chirality (1992), 4(6), 404-5
     CODEN: CHRLEP; ISSN: 0899-0042
DT
     Journal
LΑ
     English
GI
```

```
.gamma.-Cyclodextrin was used to perform chiral discrimination of
AB
     (.+-.)-5,6-diisobutyroyl-2-methylaminotetralin-HCl (I) by 1H-NMR; the 95%
     enantiomeric excess of the (-)-isomer was detd. successfully.
L2
     ANSWER 13 OF 30 REGISTRY COPYRIGHT 2003 ACS
RN
     138531-49-4 REGISTRY
CN
     Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2-
     naphthalenediyl ester, hydrochloride, (S) - (9CI) (CA INDEX NAME)
OTHER NAMES:
     (-)-(S)-5,6-Diisobutyroyloxy-2-methylaminotetralin hydrochloride
CN
FS
     STEREOSEARCH
DR
     373380-15-5
     C19 H27 N O4 . Cl H
MF
SR
LC
     STN Files:
                 CA, CAPLUS, CASREACT, DRUGPAT, DRUGUPDATES
CRN
     (146085-50-9)
```

Absolute stereochemistry. Rotation (-).

● HCl

- 2 REFERENCES IN FILE CA (1957 TO DATE)
- 2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

```
REFERENCE 1
      135:357780 CA
ΆN
      Optically active 2-aminotetralin derivatives, the processes for the
TI
      preparation thereof, and the therapeutic use of pharmaceutical
      compositions containing them as antihypertensives, etc.
      Amari, Gabriele; Del Canale, Maurizio; Razzetti, Roberta; Monici Preti,
ΙN
      Pier Alessandro; Rondelli, Ivano
PΔ
      Chiesi Farmaceutici S.p.A., Italy
SO
      PCT Int. Appl., 29 pp.
      CODEN: PIXXD2
DT
      Patent
LΑ
      English
FAN.CNT 1
      PATENT NO.
                           KIND
                                  DATE
                                                    APPLICATION NO.
                                                                         DATE
                          ·---
                                                    -----
ΡI
      WO 2001085668
                            Α1
                                  20011115
                                                    WO 2001-EP5212
                                                                         20010508
               AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
               CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
               RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
               UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     IT 2000MI1053
                           Α1
                                 20011112
                                                    IT 2000-MI1053
                                                                         20000512
     EP 1280759
                           Α1
                                 20030205
                                                    EP 2001-940415
                                                                         20010508
               AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
               IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     NO 2002005393
                           Α
                                 20030113
                                               NO 2002-5393
                                                                         20021111
```

ΆR The invention concerns the use of the optically active forms of 5,6-dihydroxy-2-methylaminotetralin and their acyl esters, namely I [R1, R2 = H, C1-4 acyl], and their pharmaceutically acceptable salts, as medicaments. Also disclosed are a process for prepn. of I, and the use of I in pharmaceutical compns. Examples illustrate the prepn. of (+) - and (-)-I [R1 = R2 = isobutyroyl (II)] and the biol. activity of (+)- and (-)-I [R1 = R2 = H (III)]. For instance, (.+-.)-II.HCl was resolved using (-)-L- and (+)-D-dibenzoyltartaric acids to give (+)-(R)- and (-)-(S)-II.HCl with > 99% enantiomeric excess (ee) in both cases. Alternatively, 3-methoxycarbonylamino-5-(2,3-dimethoxyphenyl)-2,5dihydrofuran-2-one underwent asym. hydrogenation using rhodium-(R,R)- or -(S,S) -EtDuPhos(COD)OTs complex as chiral catalysts, to give (+) -(S) - or (-)-(R)-2,3-(MeO)2C6H3CH2CH2CH(NHCO2Me)CO2H with 92% and 95% ee, resp. Cyclization of the acids to give tetralones, redn. of carbonyl, N-methylation, hydrolysis, O-demethylation, and esterification with isobutyroyl chloride in CF3CO2H, gave (+)-(R)- and (-)-(S)-II.HCl with approx. 95% ee in both cases. In several receptor assays, (-)-(S)-III showed 20 times the affinity for D2 dopaminergic receptors, and 10 times the affinity for .alpha.2 receptors, when compared to its enantiomer (+)-(R)-III, while showing similar activity at D1, .alpha.1, .beta.1, and .beta.2 receptors. This difference in activity was reflected in animal expts. using spontaneously hypertensive rats.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 2

AN 116:59832 CA

TI Application of .gamma.-cyclodextrins to enantiomeric purity determination of 2-amino-tetralins by proton NMR spectroscopy

AU Redenti, E.; Bovis, G.; Fronza, G.; Ventura, P.

CS Chem. Biopharm. Dep., Chiesi Farm., Parma, 43100, Italy

Minutes Int. Symp. Cyclodextrins, 5th (1990), 669-71. Editor(s): Duchene, Dominique. Publisher: Ed. Sante, Paris, Fr. CODEN: 57LSAJ

DT Conference

LA English

GI

AB A symposium on the chiral resoln. of (.+-.)-5,6-disubstituted-2-aminotetralins, e.g. I (R = R1 = Me; R = COCHMe2, R1 = Me), using .gamma.-cyclodextrin. The enantiomeric excess of (-)-I was detd. successfully.

ANSWER 14 OF 30 REGISTRY COPYRIGHT 2003 ACS L2

RN90060-44-9 REGISTRY

Propanoic acid, 2,2-dimethyl-, 5,6,7,8-tetrahydro-6-[(1-methylethyl)amino]-CN 1,2-naphthalenediyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

C23 H35 N O4 MF

CI COM

LCSTN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN100:191603 CA

1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them ΤI

Chiesi, Paolo; Villani, Vlavio ΙN

PA Chiesi Farmaceutici S.p.A., Italy

so Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

LA German

F'AN	CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	DE 3320936	A1	19831222	DE 1983-3320936	19830609
	DE 3320936	C2	19921119		
	. GB 2123410 `	A1	19840201	GB 1983-15673	19830608
	GB 2123410	B2	19860828		
	FR 2528422	A1	19831216	FR 1983-9626	19830610
	FR 2528422	B1	19871030		
PRA	I IT 1982-21801	19820	610		
GI					

$$R^{4}O$$

NHCHMeCH₂

OH

II

AB Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un) substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4-dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

- L2 ANSWER 15 OF 30 REGISTRY COPYRIGHT 2003 ACS
- RN 90060-43-8 REGISTRY
- CN Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-[(1-methylethyl)amino]-1,2-naphthalenediyl ester (9CI) (CA INDEX NAME)
- FS 3D CONCORD
- MF C21 H31 N O4
- CI COM.
- LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 100:191603 CA

TI 1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them

IN Chiesi, Paolo; Villani, Vlavio

PA Chiesi Farmaceutici S.p.A., Italy

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
D.T.	DD 000000				
PΙ	DE 3320936	A1	19831222	DE 1983-3320936	19830609
	DE 3320936	C2	19921119		25050005
	GB 2123410	A1	19840201	GB 1983-15673	19830608
	GB 2123410	B2	19860828	12 2507 2507.5	12020000
	FR 2528422	A1	19831216	FR 1983-9626	19830610
	FR 2528422	B1	19871030		1000010
PRAI GI	IT 1982-21801	19820	610		

$$R^{40}$$
NHCHMeCH₂
OH

Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, AB CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un) substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un) substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H). HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

II

ANSWER 16 OF 30 REGISTRY COPYRIGHT 2003 ACS L2

RN90060-42-7 REGISTRY

Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2-CNnaphthalenediyl ester (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Nolomirole

FS 3D CONCORD

DR 146085-48-5

MF C19 H27 N O4

CI COM

LC STN Files: ADISINSIGHT, CA, CAPLUS, DDFU, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES, SYNTHLINE, USPATFULL

Other Sources: WHO

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7 REFERENCES IN FILE CA (1957 TO DATE)

7 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN135:357780 CA

Optically active 2-aminotetralin derivatives, the processes for the TI preparation thereof, and the therapeutic use of pharmaceutical compositions containing them as antihypertensives, etc.

Amari, Gabriele; Del Canale, Maurizio; Razzetti, Roberta; Monici Preti, IN Pier Alessandro; Rondelli, Ivano

```
Chiesi Farmaceutici S.p.A., Italy
SO
      PCT Int. Appl., 29 pp.
      CODEN: PIXXD2
DT
      Patent
LA
      English
FAN.CNT 1
      PATENT NO.
                         KIND DATE
                                                 APPLICATION NO.
      ------
                         ----
PΙ
      WO 2001085668
                          A1
                                20011115
                                                 WO 2001-EP5212
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PRAI IT 2000-MI1053
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GΙ
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PΑ

The invention concerns the use of the optically active forms of AΒ 5,6-dihydroxy-2-methylaminotetralin and their acyl esters, namely I [R1, R2 = H, C1-4 acyl], and their pharmaceutically acceptable salts, as medicaments. Also disclosed are a process for prepn. of I, and the use of I in pharmaceutical compns. Examples illustrate the prepn. of (+)- and (-)-I [R1 = R2 = isobutyroyl (II)] and the biol. activity of (+)- and (-)-I [R1 = R2 = H (III)]. For instance, (.+-.)-II.HCl was resolved using (-)-L- and (+)-D-dibenzoyltartaric acids to give (+)-(R)- and (-)-(S)-II.HCl with > 99% enantiomeric excess (ee) in both cases. Alternatively, 3-methoxycarbonylamino-5-(2,3-dimethoxyphenyl)-2,5dihydrofuran-2-one underwent asym. hydrogenation using rhodium-(R,R)- or -(S,S)-EtDuPhos(COD)OTs complex as chiral catalysts, to give (+)-(S)- or (-)-(R)-2,3-(MeO)2C6H3CH2CH2CH(NHCO2Me)CO2H with 92% and 95% ee, resp. Cyclization of the acids to give tetralones, redn. of carbonyl, N-methylation, hydrolysis, O-demethylation, and esterification with isobutyroyl chloride in CF3CO2H, gave (+)-(R)- and (-)-(S)-II.HCl with approx. 95% ee in both cases. In several receptor assays, (-)-(S)-III showed 20 times the affinity for D2 dopaminergic receptors, and 10 times the affinity for .alpha.2 receptors, when compared to its enantiomer (+)-(R)-III, while showing similar activity at D1, .alpha.1, .beta.1, and .beta.2 receptors. This difference in activity was reflected in animal expts. using spontaneously hypertensive rats.

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE

AN 134:125975 CA

TT 2-Aminotetralin derivatives for the therapy of glaucoma

Bongrani, Stefano; Razzetti, Roberta; Chiesi, Paolo

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PCT Int. Appl., 18 pp.
 so
     CODEN: PIXXD2
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     Disclosed is the use of racemic or optically active compds. of
     5,6-diisobutyroyloxy-2-methylaminotetralin, 5,6-diisobutyroyloxy-2-
     aminotetralin, and salts thereof for the prepn. of pharmaceutical compns.
     for the therapy of ophthalmic disorders. Intraocular pressure-lowering
     activities of CHF 1035 were tested with rabbits.
REFERENCE 3
ΑN
     126:220252 CA
TI
     New method for the resolution of the enantiomers of 5,6-dihydroxy-2-methyl-
     aminotetralin by selective derivatization and HPLC. [Erratum to document
     cited in CA125:316086]
ΑU
     Rondelli, Ivano; Corsaletti, Roberto; Redenti, Enrico; Acerbi, Daniela;
     Delcanale, Maurizio; Amari, Gabriele; Ventura, Paolo
     Chemical Biopharmaceutical Direction, Parma, Italy
CS
SO
     Chirality (1997), 9(1), 89
     CODEN: CHRLEP; ISSN: 0899-0042
PB
     Wiley-Liss
DT
     Journal
LA
     English
     The errors were not reflected in the abstr. or the index entries.
AB
REFERENCE 4
AN
     125:317359 CA
TI
     Aminotetralin derivative for the therapy of cardiovascular diseases
     Chiesi, Paolo; Bongrani, Stefano; Razetti, Roberta; Civelli, Maurizio;
IN
     Umile, Alberto
PA
     Chiesi Farmaceutici S.P.A., Italy
SO
     PCT Int. Appl., 18 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                     KIND
                           DATE
                                          APPLICATION NO.
                                                           DATE
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Chiesi Farmaceutici S.P.A., Italy

PΑ

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PRAI IT 1995-MI532
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                      19960313
     WO 1996-EP1060
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    US 1999-328434
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                      20000607
    The use of 5,6-diisobutyroyloxy-2-methylaminotetralin (I) at 2.5-20 mg/day
     for the therapy of cardiac disorders, particularly of congestive heart
    failure is described. The pharmacol. effects of I (5, 10 or 15 mg) on the
    hemodynamic parameters and the neurohumoral pattern was carried out in 18
    patients. I induced a significant improvement in hemodynamic parameters
    and systemic vasodilation without inducing any reflected increase in
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REFERENCE 5

AB

AN125:316086 CA

catecholamine plasma levels.

New method for the resolution of the enantiomers of 5,6-dihydroxy-2-methyl-TIaminotetralin by selective derivatization and HPLC analysis: application to biological fluids

ΑU Rondelli, Ivano; Corsaletti, Roberto; Redenti, Enrico; Acerbi, Daniela; Delcanale, Maurizio; Amari, Gabriele; Ventura, Paolo Chemical Biopharmaceutical Direction, Chiesi Farmaceutici S.p.A., Parma, CS

Italy

Chirality (1996), 8(5), 381-389 SO CODEN: CHRLEP; ISSN: 0899-0042

PB Wiley-Liss

DT Journal

English LA

A new chiral derivatization procedure for the HPLC resoln. of chiral AΒ catecholamines and structurally related compds. is described. homochiral reagent, (+)-(R)-1-phenylethyl isocyanate (RPEIC), was added to sep. and quantitate the enantiomers of rac-5,6-dihydroxy-2-methylaminotetralin, the main metabolite of rac-5,6-diisobutyryl-2-methylaminotetralin, a potent dopamine agonist, by reversed-phase HPLC anal. avoid catecholamine degrdn. in the basic reaction medium and to obtain the selective and quant. derivatization of the amino group of the compd., the reversible complex formation between diphenylborinic acid (DPBA) and the catechol group, in alk. medium, was performed before homochiral isocyanate addn. The RPEIC derivatization was completed in 30 min and then the DPBA complex was dissocd. by adding dil. acid. The structure of intermediates and urea derivs. was confirmed by mass spectrometry. The use of an electrochem. detector, operating in redox mode, allowed HPLC quantitation of enantiomers at the nanogram level in plasma and urine. The derivatization procedure is also suitable for other catecholamine-related compds.

REFERENCE 6

ΑN 118:154695 CA

Application of .gamma.-cyclodextrin to enantiomeric purity determination TIof a new 2-aminotetralin derivative by proton NMR spectroscopy

Redenti, Enrico; Fronza, Giovanni; Bovis, Giovanni; Ventura, Paolo CS

Chem. Biopharm. Dep., Chiesi Farm. S.p.A., Parma, I-43100, Italy

Chirality (1992), 4(6), 404-5

CODEN: CHRLEP; ISSN: 0899-0042

DTJournal

LΑ English

GΙ

AΒ .gamma.-Cyclodextrin was used to perform chiral discrimination of (.+-.)-5,6-diisobutyroyl-2-methylaminotetralin-HCl (I) by 1H-NMR; the 95% enantiomeric excess of the (-)-isomer was detd. successfully.

REFERENCE 7

AN 100:191603 CA

1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them TT

Chiesi, Paolo; Villani, Vlavio IN

PΑ Chiesi Farmaceutici S.p.A., Italy

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

German

FAN.CNT 1

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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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ΡI	DE 3320936	A1	19831222	DE 1983-3320936	19830609
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	GB 2123410	A1	19840201	GB 1983-15673	19830608
	GB 2123410	B2	19860828		13030000
	FR 2528422	A1	19831216	FR 1983-9626	19830610

$$R^{40}$$
NHCHMeCH₂
OH
II

Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un)substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4-dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

- L2 ANSWER 17.0F 30 REGISTRY COPYRIGHT 2003 ACS
- RN 90060-41-6 REGISTRY
- CN Propanoic acid, 2,2-dimethyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl ester (9CI) (CA INDEX NAME)
- FS 3D CONCORD
- MF C21 H31 N O4
- CI COM
- LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

- AN 100:191603 CA
- TI 1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them
- IN Chiesi, Paolo; Villani, Vlavio
- PA Chiesi Farmaceutici S.p.A., Italy

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent LA German

FAN.CNT 1

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PRA	I IT 1982-21801	19820	610		
GT					

$$R^4O$$

$$NHCHMeCH_2$$
OH
I

Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un)substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4-dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

L2 ANSWER 18 OF 30 REGISTRY COPYRIGHT 2003 ACS

RN 90060-36-9 REGISTRY

CN Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-[[2-(4-methoxyphenyl)-1-methylethyl]amino]-1,2-naphthalenediyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C28 H37 N O5

CI COM

LC STN Files: CA, CAPLUS, CASREACT

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 100:191603 CA

1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them TT

Chiesi, Paolo; Villani, Vlavio IN

Chiesi Farmaceutici S.p.A., Italy PA

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

LΑ German

FAN. CNT 1

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	GB 2123410	B2	19860828		23030000
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PRAI	IT 1982-21801	19820	610		
GI					

$$R^{4}O$$
NHCHMeCH₂
OH
II

- AB Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2 (CH2) nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un) substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.
- L_2 ANSWER 19 OF 30 REGISTRY COPYRIGHT 2003 ACS
- RN90060-35-8 REGISTRY
- CNPropanoic acid, 2,2-dimethyl-, 5,6,7,8-tetrahydro-6-[[2-(4-hydroxyphenyl)-1-methylethyl]amino]-1,2-naphthalenediyl ester (9CI) (CA INDEX NAME)
- FS 3D CONCORD
- ΜF C29 H39 N O5
- LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

ΑN 100:191603 CA

1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them ΤI

IN Chiesi, Paolo; Villani, Vlavio

PΑ Chiesi Farmaceutici S.p.A., Italy

Ger. Offen., 33 pp. SO

CODEN: GWXXBX

DTPatent

LA German

FAM CMT 1

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F	PRAI IT 1982-21801	19820	610		
G	3I		- - •		

$$R^{40}$$
NHCHMeCH₂
OH
II

AB Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un)substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg.

K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

ANSWER 20 OF 30 REGISTRY COPYRIGHT 2003 ACS L2

RN 90060-34-7 REGISTRY

Propanoic acid, 2-methyl-, 6-amino-5,6,7,8-tetrahydro-1,2-naphthalenediyl CN (CA INDEX NAME)

FS 3D CONCORD

MF C18 H25 N O4

CI COM

LCSTN Files: CA, CAPLUS

134:125975 CA

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1957 TO DATE)

2-Aminotetralin derivatives for the therapy of glaucoma

2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

ΑN

ΤI

IN

```
Bongrani, Stefano; Razzetti, Roberta; Chiesi, Paolo
PΑ
     Chiesi Farmaceutici S.P.A., Italy
so
     PCT Int. Appl., 18 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
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                                                            ______
ΡI
     WO 2001008667
                      A2
                            20010208
                                           WO 2000-EP7184
                                                            20000726
     WO 2001008667
                      A3
                            20010607
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     IT 99MI1713
                            20010130
                      A1
                                          IT 1999-MI1713
                                                            19990730
     EP 1200079
                       A2
                            20020502
                                           EP 2000-956296
                                                            20000726
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
     JP 2003505499
                       T2
                            20030212
                                           JP 2001-513397
                                                            20000726
    NO 2002000475
                       Α
                            20020313
                                           NO 2002-475
                                                            20020129
PRAI IT 1999-MI1713
                      19990730
     WO 2000-EP7184
                      20000726
    Disclosed is the use of racemic or optically active compds. of
AΒ
     5,6-diisobutyroyloxy-2-methylaminotetralin, 5,6-diisobutyroyloxy-2-
    aminotetralin, and salts thereof for the prepn. of pharmaceutical compns.
     for the therapy of ophthalmic disorders. Intraocular pressure-lowering
     activities of CHF 1035 were tested with rabbits.
```

REFERENCE 2

AN 100:191603 CA

TI 1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them

IN Chiesi, Paolo; Villani, Vlavio

PA Chiesi Farmaceutici S.p.A., Italy

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN. CNT 1

I MIV. CIVI	ъ					
PAT	ENT NO.	KIND	DATE	API	PLICATION NO.	DATE
PI DE	3320936	A1	19831222	DE	1983-3320936	19830609
DE	3320936	C2	19921119			
GB	2123410	A1	19840201	GB	1983-15673	19830608
GB	2123410	B2	19860828			
FR	2528422	A1	19831216	FR	1983-9626	19830610
FR	2528422	B1	19871030			
PRAI IT GI	1982-21801	198206	510			

$$R^{4}O$$
NHCHMeCH₂
OH
II

Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un)substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4-dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

L2 ANSWER 21 OF 30 REGISTRY COPYRIGHT 2003 ACS

RN 90060-33-6 REGISTRY

CN Propanoic acid, 2,2-dimethyl-, 6-amino-5,6,7,8-tetrahydro-1,2-naphthalenediyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C20 H29 N O4

CI COM

LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 100:191603 CA

TI 1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them

IN Chiesi, Paolo; Villani, Vlavio

PA Chiesi Farmaceutici S.p.A., Italy

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
					~
ΡI	DE 3320936	A1	19831222	DE 1983-3320936	19830609
	DE 3320936	C2	19921119		
	GB 2123410	A1	19840201	GB 1983-15673	19830608
	GB 2123410	B2	19860828		
	FR 2528422	A1	19831216	FR 1983-9626	19830610
	FR 2528422	B1	19871030		17030010
PR	AI IT 1982-21801	19820	610		
GΙ			•		

$$R^{4}O$$
NHCHMeCH₂
OH
II

Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un)substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = C0, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4-dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

ANSWER 22 OF 30 REGISTRY COPYRIGHT 2003 ACS L2

RN90060-23-4 REGISTRY

Propanoic acid, 2,2-dimethyl-, 5,6,7,8-tetrahydro-6-[(1-methylethyl)amino]-CN1,2-naphthalenediyl ester, hydrobromide (9CI) (CA INDEX NAME)

MF C23 H35 N O4 . Br H

LC STN Files: CA, CAPLUS

CRN (90060-44-9)

HBr

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

ΑN 100:191603 CA

1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them TI

IN Chiesi, Paolo; Villani, Vlavio

Chiesi Farmaceutici S.p.A., Italy PA

Ger. Offen., 33 pp. SO

CODEN: GWXXBX

DT Patent

LAGerman

FAN.CNT 1

1111.	CNII				
	PATENT NO.	KIND	DATE	APPLICATION NO	DATE
PΙ	DE 3320936	A1	19831222	DE 1983-3320936	19830609
	DE 3320936	C2		DE 1003-3320936	19830609
		C2	19921119		
	GB 2123410	A 1	19840201	GB 1983-15673	19830608
	GB 2123410	B2	19860828	65 2363 13673	13030000
		•			
	FR 2528422	A1	19831216	FR 1983-9626	19830610
	FR 2528422	B1	19871030		17030010
DDAT	IT 1982-21801				
	TI T207-71801	19820	610		
GI					

CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un) substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H) .HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

- L2ANSWER 23 OF 30 REGISTRY COPYRIGHT 2003 ACS
- RN 90060-22-3 REGISTRY
- Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-[(1-methylethyl)amino]-1,2-CNnaphthalenediyl ester, hydrobromide (9CI) (CA INDEX NAME)
- C21 H31 N O4 . Br H MF
- STN Files: LC CA, CAPLUS
- CRN (90060-43-8)

● HBr

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

- AN100:191603 CA
- 1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them TI
- Chiesi, Paolo; Villani, Vlavio IN
- PA Chiesi Farmaceutici S.p.A., Italy
- Ger. Offen., 33 pp. SO
- CODEN: GWXXBX ידת Patent
- LA German
- FAN. CNT 1

7.271	· CIVI I				
	PATENT NO.	KIND	DATE	APPLICATION NO	. DATE
		~	~		
ΡI	DE 3320936	A1	19831222	DE 1983-332093	6 19830609
	DE 3320936	C2	19921119		
	GB 2123410	A1	19840201	GB 1983-15673	19830608
	GB 2123410 ·	B2	19860828		
	FR 2528422	A1	19831216	FR 1983-9626	19830610
	FR 2528422	B1	19871030		
PRA GI	I IT 1982-21801	19820			

$$R^{4}O$$
NHCHMeCH₂
OH

AB Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un) substituted by1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

II

ANSWER 24 OF 30 REGISTRY COPYRIGHT 2003 ACS L2

RN90060-21-2 REGISTRY

CN Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2naphthalenediyl ester, hydrobromide (9CI) (CA INDEX NAME)

MFC19 H27 N O4 . Br H

LCCA, CAPLUS, DRUGPAT, DRUGUPDATES STN Files:

CRN (90060-42-7)

● HBr

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 100:191603 CA

ΤI 1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them

IN Chiesi, Paolo; Villani, Vlavio

Chiesi Farmaceutici S.p.A., Italy PA

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DTPatent

LΑ German

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO.

		3320936	A1	19831222	DE	1983-3320936	19830609
	DE	3320936	C2	19921119			
	GB	2123410	A1	19840201	GB	1983-15673	19830608
	GB	2123410	B2	19860828			
	FR	2528422	A1	19831216	FR	1983-9626	19830610
	FR	2528422	B1	19871030			
PRAI GI	IT	1982-21801	19820	0610			

$$R^{4}O$$

NHCHMeCH₂

OH

II

Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un)substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4-dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

L2 ANSWER 25 OF 30 REGISTRY COPYRIGHT 2003 ACS

RN 90060-19-8 REGISTRY

CN Propanoic acid, 2,2-dimethyl-, 5,6,7,8-tetrahydro-6-(methylamino)-1,2-naphthalenediyl ester, hydrobromide (9CI) (CA INDEX NAME)

MF C21 H31 N O4 . Br H

LC STN Files: CA, CAPLUS

CRN (90060-41-6)

HBr

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

AN 100:191603 CA

1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them ΤI

IN Chiesi, Paolo; Villani, Vlavio

PA Chiesi Farmaceutici S.p.A., Italy SO

Ger. Offen., 33 pp.

CODEN: GWXXBX

DTPatent

LA German FAN.CNT 1

T. LTIA.	CIVI					
	PATENT NO.	KIND	DATE	AP	PLICATION NO.	DATE
ΡI	DE 3320936	A1	19831222	DE	1983-3320936	19830609
	DE 3320936	C2	19921119		1905 5520750	19030609
	GB 2123410	A1	19840201	GB	1983-15673	19830608
	GB 2123410	B2	19860828	02	1000 10075	13030608
	FR 2528422	A1	19831216	ਰਜ	1983-9626	19830610
	FR 2528422	B1	19871030	- 10	1703 7020	19030610
PRAI	IT 1982-21801	19820	610			
CIT						

$$R^{4}O$$

$$NHCHMeCH_{2}$$
OH
II

Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, AB CR1R2 (CH2) nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un) substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un) substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

ANSWER 26 OF 30 REGISTRY COPYRIGHT 2003 ACS L2

RN90060-17-6 REGISTRY

Propanoic acid, 2-methyl-, 5,6,7,8-tetrahydro-6-[[2-(4-methoxyphenyl)-1-CNmethylethyl]amino]-1,2-naphthalenediyl ester, hydrochloride (9CI) (CA INDEX NAME)

MF C28 H37 N O5 . Cl H

LC STN Files: CA, CAPLUS

CRN (90060 - 36 - 9)

HCl

- 1 REFERENCES IN FILE CA (1957 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN TI IN PA	100:191603 CA 1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing Chiesi, Paolo; Villani, Vlavio Chiesi Farmaceutici S.p.A., Italy	them
so	Ger. Offen., 33 pp.	
	CODEN: GWXXBX	
\mathtt{DT}	Patent	
LA	German	
FAN.	CNT 1	

KIND	DATE	APPLICATION :	NO. DATE
A1	19831222	DE 1983-3320	936 19830609
C2	19921119		230 12030002
A1	19840201	GB 1983-1567	3 19830608
B2	19860828	1703 1307	17030000
A1	19831216	FR 1983-9626	19830610
B1	19871030	111 1702 7020	17030010
19820	610		
	A1 C2 A1 B2 A1 B1	A1 19831222 C2 19921119 A1 19840201 B2 19860828 A1 19831216	A1 19831222 DE 1983-3320 C2 19921119 A1 19840201 GB 1983-1567 B2 19860828 A1 19831216 FR 1983-9626 B1 19871030

$$R^{4}O$$
NHCHMeCH₂
OH
II

Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un)substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4-dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg.

K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

ANSWER 27 OF 30 REGISTRY COPYRIGHT 2003 ACS L2

RN90060-16-5 REGISTRY

Propanoic acid, 2,2-dimethyl-, 5,6,7,8-tetrahydro-6-[[2-(4-methoxyphenyl)-CN 1-methylethyl]amino]-1,2-naphthalenediyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

C30 H41 N O5 MF

CI COM

LC STN Files: CA, CAPLUS, CASREACT

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN100:191603 CA

1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them ΤI

IN Chiesi, Paolo; Villani, Vlavio

PΑ Chiesi Farmaceutici S.p.A., Italy

Ger. Offen., 33 pp. SO

CODEN: GWXXBX

DΤ Patent

LA German

FAN.CNT 1

~ .	TI.CHI I				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
P.	I DE 3320936	A1	19831222	DE 1983-3320936	19830609
	DE 3320936	C2	19921119		
	GB 2123410	A1	19840201	GB 1983-15673	19830608
	GB 2123410	B2	19860828		17030000
	FR 2528422	A1	19831216	FR 1983-9626	19830610
	FR 2528422	B1	19871030	_	
PI GI	RAI IT 1982-21801	19820			

$$R^{4}O$$
NHCHMeCH₂
OH

Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, AΒ CR1R2 (CH2) nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un) substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.

II

ANSWER 28 OF 30 REGISTRY COPYRIGHT 2003 ACS L2

RN 90060-15-4 REGISTRY

Propanoic acid, 2,2-dimethyl-, 5,6,7,8-tetrahydro-6-[[2-(4-methoxyphenyl)-CN1-methylethyl]amino]-1,2-naphthalenediyl ester, hydrochloride (9CI) INDEX NAME)

MF C30 H41 N O5 . Cl H

LC STN Files: CA, CAPLUS

CRN (90060-16-5)

HCl

1 REFERENCES IN FILE CA (1957 TO DATE)

1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN100:191603 CA

1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them TI

IN Chiesi, Paolo; Villani, Vlavio

Chiesi Farmaceutici S.p.A., Italy PA

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1					
PATENT NO.	KIND	DATE	APP	LICATION NO.	DATE
DT DE 2200026					
PI DE 3320936	A1	19831222	DE	1983-3320936	19830609
DE 3320936	C2	19921119			
GB 2123410	A1	19840201	GB	1983-15673	19830608
GB 2123410	B2	19860828			1000000
FR 2528422	A1	19831216	FR	1983-9626	19830610
FR 2528422	B1	19871030			12020010
PRAI IT 1982-21801	19820	610			
GI					

$$R^{4}O$$

NHCHMeCH₂

OH

II

Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un)substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4-dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against

- L2 ANSWER 29 OF 30 REGISTRY COPYRIGHT 2003 ACS
- RN 90060-14-3 REGISTRY
- CN Propanoic acid, 2-methyl-, 6-amino-5,6,7,8-tetrahydro-1,2-naphthalenediyl ester, hydrobromide (9CI) (CA INDEX NAME)
- MF C18 H25 N O4 . Br H
- LC STN Files: CA, CAPLUS, CASREACT
- CRN (90060-34-7)

HBr

REFERENCE 1

AN 100:191603 CA

TI 1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them

IN Chiesi, Paolo; Villani, Vlavio

PA Chiesi Farmaceutici S.p.A., Italy

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	CITI					
	PATENT NO.	KIND	DATE	AP	PLICATION NO.	DATE
ΡI	DE 3320936	A1	19831222	DE	1983-3320936	19830609
	DE 3320936	C2	19921119			
	GB 2123410	A1	19840201	GB	1983-15673	19830608
	GB 2123410	B2	19860828			
	FR 2528422	A1	19831216	FR	1983-9626	19830610
	FR 2528422	B1	19871030			
PRAI GI	IT 1982-21801	19820	610			

$$R^{4}O$$

NHCHMeCH₂

OH

II

- Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un)substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = C0, SO2; R3 = C1-15 alkyl, Ph (un)substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4-dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82% II (R4 = H).HBr which had ID50 of 1.6 nmol/kg (guinea pigs) against histamine-induced bronchospasm.
- L2 ANSWER 30 OF 30 REGISTRY COPYRIGHT 2003 ACS
- RN 90060-13-2 REGISTRY
- CN Propanoic acid, 2,2-dimethyl-, 6-amino-5,6,7,8-tetrahydro-1,2-naphthalenediyl ester, hydrobromide (9CI) (CA INDEX NAME)
- MF C20 H29 N O4 . Br H
- LC STN Files: CA, CAPLUS, CASREACT
- CRN (90060-33-6)

HBr

1 REFERENCES IN FILE CA (1957 TO DATE) 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1

AN 100:191603 CA

1,2,3,4-Tetrahydronaphthalene derivatives and compositions containing them TI

IN Chiesi, Paolo; Villani, Vlavio

PA Chiesi Farmaceutici S.p.A., Italy

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

LΑ German

FAN CNT 1

PAN.	CNT I				
	PATENT NO.	KIND	DATE	APPLICATION NO	. DATE
D.T.					
ΡΙ	DE 3320936	A1	19831222	DE 1983-3320936	5 19830609
	DE 3320936	C2 ·	19921119		17030009
	GB 2123410	A1	19840201	GB 1983-15673	19830608
	GB 2123410	B2	19860828	13075	13630606
	FR 2528422	A1	19831216	FR 1983-9626	19830610
	FR 2528422	B1	19871030	110 1903 3020	17030610
PRAI	IT 1982-21801	19820610			•
GI					

$$R^{4}O$$

$$NHCHMeCH_{2}$$
OH
II

AΒ Tetrahydronaphthalenes I [R = H, C1-4 alkyl, C4-7 cycloalkyl, CR1R2(CH2)nPh; R1, R2 = H, C1-4 alkyl; n = 1, 2; the Ph (un)substituted by 1 or several halo, OH, MeO, OCH2O; Z, Z1 = H, C1-4 alkyl, C3-7 cycloalkyl, Z2R3; Z2 = CO, SO2; R3 = C1-15 alkyl, Ph (un) substituted by C1-4 alkyl] and their physiol. tolerable salts, having sympathomimetic activity and useful as uterus relaxants, vasoconstrictors, parkinsonism inhibitors (no data), and bronchodilators, were prepd. Condensing 5,6-dimethoxy-3,4dihydro-2(1H)-naphthalenone with 4-HOC6H4CH2CH(NH2)Me.HBr in MeOH contg. K2CO3 and reducing the product in situ with NaBH3CN gave II (R4 = Me), isolated as the HCl salt. This diether was cleaved with HBr to give 82%

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